COMPUR Monitors

Gasdetection for your Safety

Table of content

The Monitox plus Page 3
The portable single gas monitor

Compur Gas Generator Page 4
Easy bump test for single gas monitors

Phosgene Indicator Badge Page 5
Reusable indicator badge holder with
two measuring ranges in one badge.

Phosgene Indicator Badge MEDIC Page 6
Designed to meet the requirements of the
latest research findings in Industrial hygiene

Tracer Page 7
Leak detector for very toxic gases in the ppb-level

Statox 501 Control Module Page 8
One control module for all kind of sensor heads

Statox 501 HRC and ARE Page 9
Sensor heads for combustible gases with
catalytic sensors

Statox 501 S Sensor head Page 10
Sensor head for toxic gases –
4 – 20 mA transmitter with electrochemical sensor

Statox 501 IR Page 11
High-end gas detector for combustible gases
with infrared sensor

Statox 501 IR LC and MC Page 12
Sensor heads for combustible gases with infrared sensors

Statox 501 PID Page 13
Sensor head for VOCs in the ppm range

Statox 505 Page 14
Sensor head for toxic gases SIL standard. Features plug
and play technology, sensor heartbeat and more.

Monitox plus
The classic single Gas Detector

The Monitox plus can detect fourteen different toxic gases. It measures the actual gas concentration and generates a visual and audible alarm as soon as the user selectable alarm threshold is exceeded.

A functional test or calibration, and even sensor replacement can be performed without opening the instrument.

An extra safety feature is the sensor heartbeat monitoring. This feature will detect a missing or defective sensor.

AsH_3
Cl_2
ClO_2
CO
$COCl_2$
H_2S
HCl
HCN
N_2H_4
NO_2
O_2
O_3
PH_3
SO_2

Test Gas Generator for easy Bump Test of Gas Detectors
Safety in ten Seconds

Personnel working in chemical plants, uses gas detectors to protect themselves from exposure to toxic gases. Gas leaks fortunately happen very rarely, so the gas detector will normally read “zero” all the time.

The “zero” reading may have two reasons:
a) The gas concentration is zero.
b) The gas detector is defective.

For this good reason a daily performance test of the gas detector is mandatory in many plants. A complete calibration would be too time-consuming, but a bump test will prove that the detector is working. It will reliably indicate any damage by wear and tear or abuse.

The gas generator can be operated by everyone without extra training. The gas generation starts, as soon as a gas detector is attached to it. It stops gas generation automatically after ten seconds, or if the gas detector is removed. If the detector fails to alarm within this time interval, it needs to be serviced.

$COCl_2$
Cl_2
CO
HCN
H_2S
NO_2
O_3
SO_2

$COCl_2$

Phosgene Indicator Badge Field-Proven Technology

A reusable badge holder equipped with a robust clip holds an indicator paper that changes its color when exposed to Phosgene. It can be easily attached to the clothing or hard hat. The indicator paper should be replaced after three days.

The intensity of the stain gives important information to the doctor attending phosgene exposed personnel.

One of the gas access windows is covered with an extra diffusion barrier providing two measuring ranges in one badge.

The reasonable price of the Compur indicator badge allows monitoring all personnel in the plant.

$COCl_2$

Phosgene Indicator Badge MEDIC
The latest Addition

Recent research in industrial hygiene has shown, that therapy procedures of phosgene-exposed personnel needed to be changed. This required an indicator badge with new specifications.

Phosgene intoxication may not show immediate symptoms. Thus the doctor attending has no immediate physical indication for the exposure. Therefore the MEDIC badge is his most important tool to decide upon an adequate therapy.

The badge should be worn by any personnel in the plant – not only in the manufacturing area. It is good for five days, covering a full working week.

Tracer
No Leakage can go unnoticed

The Tracer is a leak detector specific to extremely toxic gases. It is very sensitive: The detection limit is as low as 2 ppb for some gases. To locate a leak, just move the tip of the sampling probe along the surface to be inspected. As soon as the probe is approaching a leak, the gas concentration will increase. The reading (digital or bargraph) as well as the frequency of the audible signal will increase.

The Tracer protects its sensor from poisoning. The pump is switched off as soon as the measuring range is exceeded. It will start again, as soon as the concentration drops to a normal level.

To locate larger leaks, the Tracer can easily be converted to a high range version. Just unplug the low range sensor and replace it by the high range sensor. No tools required.

Cl_2
ClO_2
CO
$COCl_2$
H_2S
HCl
HCN
NO_2

Compur Statox 501 Control Module
One for all

The Statox 501 control module works with all types of sensor heads. No matter which sensing technology is used in the field, the Statox 501 control module can always process the signal. One control module together with a sensor head forms a complete gas detection system.

Great in performance, modest in requirements: Statox 501 is small in size and energy efficient. It is DIN rail – mounted, so there is no need for a rack. It needs only 5 W at 24 V DC. It has three powerful relays, of which each can handle 2 A, as well as an analog 4 – 20 mA output to be connected to a recording device or process control system.

Each control module provides a half bridge, display unit, relay station, and calibration interface for catalytic and infrared sensors. It is also a control module for toxic gas sensor heads with electrochemical sensors, or even PID sensor heads. In case of extensive distance between sensor head and control room, it even provides two “sense” contacts to compensate for the voltage drop in the cable.

It is not only a display unit for combustible gas sensors, it is also a relay station for transmitters operating as ‘source’ or as ‘sink’.

Sensor heads and peripheral devices are very easy to connect, as all terminals are accessible from the front. The 24 V DC power supply and alarm signals run on a bus connector from one controller to the next. This bus structure supports also common alarm modules forming alarm groups, each with three relays of which the audible alarm relay that can be reset separately.

Statox 501 HRC and ARE
Two Sensor Heads covering all explosive Hazards

Statox 501 sensor heads HRC and ARE detect combustible gases in the range 0 – 100 % LEL. Both operate with catalytic sensors. This sensor type burns the gas to be detected on the catalytic surface of the sensing element and thus increases its internal temperature and electrical resistance. This parameter is easy to measure. Therefore these sensor heads are robust and affordable.

Catalytic sensors respond to any kind of combustibles although not with the same sensitivity for different substances. Statox 501 HRC is the better choice for volatile hydrocarbons, while the ARE type is very good for solvents and fuels.

Both sensor heads operate in conjunction with the Statox 501 control module which provides the power supply and processes the signal. It features three powerful relays and a 4 – 20 mA analog output.

The combination sensor head / control module constitutes a complete gas detection system for combustible gases. There is one potential disadvantage of catalytic sensors: Their reliability may be compromised by catalyst poison or oxygen deficiency. In this case one of Compur Monitors infrared gas detectors will be the better alternative.

AsH_3
Cl_2
ClO_2
CO
$COCl_2$
H_2
H_2S
HCl
HCN
HF
N_2H_4
NH_3
NO_2
O_2
O_3
PH_3
SO_2

Statox 501 S
The most versatile Toxic Gas Detector

Wherever dangerous concentrations of toxic gases or oxygen deficiency may occur, the Statox 501 S will monitor the atmosphere.

It provides safety, outdoors as well as indoors. This gas detection system is field – proven in the chemical and petrochemical industry, in waste water treatment and manufacturing plants. It operates with electrochemical sensors, which are very specific to the target gas.

The transmitter provides a linear 4 – 20 mA signal, which can be run into a Statox 501 control module or directly into a process control system.

As the electronics are designed intrinsically safe, the sensor head can be opened even in hazardous atmosphere without any extra precautions. This makes calibration or even sensor replacement very easy. As the sensor head has a digital display, only a gas adapter and a screw driver are needed to do this.

Compur Statox 501 IR
The Comfort Class

Statox 501 IR detects combustible gases or CO_2 in the ppm range or 0 – 100 % LEL. The sensor head is an active transmitter with 4 – 20 mA output, electrically isolated from the power supply. The digital display shows the actual concentration.

Two magnetic pins on the gas adapter operate hall sensors inside the sensor head. This non-intrusive feature gives access to the calibration menu and all parameter setting programs.

The infrared sensor itself is located in the center of the stainless steel body. It is always kept warm by the excess heat from the lamp and the electronics. This prevents condensation without extra heating.

Failure of important components such as the light source or photo detector will trigger a “system fail” alarm. Most local authorities will accept this as a self-diagnostic feature. Systems including a self-check require less maintenance and calibration, saving time and money.

Compur Statox 501 Infrared LC and MC
Safety at a favorable price

These two detectors for combustible gases stand for reasonably priced high quality gas detectors. The sensor heads consist of an EEx e housing and the sensor itself. The sensors operate with infrared absorption. Their output signal is a voltage signal similar to a catalytic sensor. Therefore it can be operated with the Statox 501 control module.

This design features the advantages of an infrared combustible gas detector nearly for the price of a catalytic sensor. In fact it can even replace catalytic sensors wherever corrosion problems have occurred – without replacing the entire hardware!

While the LC-type is most suitable for ideal gases, the MC-type works better for solvents and fuels. Response factors for many gases are published on **www.compur.com** Using these response factors you can easily calibrate the sensor heads in the field with commercially available span gas.

Statox 501 PID
The Allrounder

PIDs (Photo-Ionisation-Detectors) detect VOCs (Volatile Organic Compounds) in the ppm range, which other sensor types are unable to monitor, like solvents and fuels.

A PID sensor uses high energy ultra violet light radiation to break gas molecules into radicals, which are discharged while passing a condenser. The discharge current increases proportional to the number of molecules, i. e. the gas concentration.

The standard Statox 501 PID will detect all substances with a ionization energy below 10,6 eV

Statox 505
You always know what is going on in your plant

The new Statox 505 gas detector family features everything a modern gas detector needs:

- Sil 2 standard
- Sensor heartbeat technology
- Smart sensor

Statox 505 complies with the requirements of Sil standard according to DIN EN 61508 as well as DIN EN 50402. The hardware assessment has been performed by EXIDA. All important parameters are permanently monitored, so that no undetected dangerous failure can occur.

All relevant sensor parameters are saved in the sensor F-RAM memory. For the user this means that he can do calibration work in the workshop, away from the harsh elements. All you have to do is remove the sensor (no tool required!), calibrate it in the shop and then plug it back in.

The display and controls are located inside the housing – well protected from the elements. The sensor head comes inclusive a stainless steel mounting plate for wall or pipe mounting.

AsH_3
Cl_2
ClO_2
CO
$COCl_2$
H_2
H_2S
HCl
HCN
HF
N_2H_4
NH_3
NO_2
O_2
O_3
PH_3
SO_2

Specifications are subject to change without notice, and are provided only for comparison of products. The conditions, under which our products are used, are beyond our control. Therefore, the user must fully test our products and/or information to determine suitability for any intended use, application, condition or situation. All information is given without warranty or guarantee. Compur Monitors disclaims any liability, negligence or otherwise, incurred in connection with the use of the products and information. Any statement or recommendation not contained herein is unauthorized and shall not bind Compur Monitors. Nothing herein shall be construed as a recommendation to use any product in conflict with patents covering any material or device or its use. No licence is implied or in fact granted under the claims of any patent. Instruments are manufactured by Compur Monitors GmbH & Co. KG, Munich.
The General Conditions of Supply and Service of Compur Monitors GmbH & Co. KG are applicable. 09/2011

www.artconcept-werbeagentur.de

COMPUR Monitors

Germany

COMPUR Monitors GmbH & Co. KG
Weißenseestraße 101
D - 81539 München
Phone: ++49 89 620 38 - 0
Fax: ++49 89 620 38 - 184
E-Mail: compur@compur.de
Internet: **www.compur.com**

USA, Canada:

COMPUR Monitors Inc.
100. E. Nasa PKWY Suite 308
USA - Webster TX 77598
Phone: ++1 281 338 78 85
Fax: ++1 281 557 79 11
E-Mail: uscompur@compur.us
Internet: **www.compur.com**

Belgium, Netherlands, Luxemburg:

COMPUR Monitors B.V.
De Veldoven 49
NL - 3342 GR Hendrik Ido Ambacht
Phone: ++31 78 682 05 37
Fax: ++31 78 682 19 36
E-Mail: info@compur.nl
Internet: **www.compur.nl**

France:

COMPUR Monitors SARL
155 Avenue du General de Gaulle
F - 92140 Clamart
Phone: ++33 1 45 37 89 51
Fax: ++33 1 45 37 88 56
E-Mail: compur@compur.fr
Internet: **www.compur.fr**